

CLAIMS

We Claim:

1. A polymer comprising propylene having:
 - a) a 1,3 regio defect population of greater than 5 per 10,000 monomer units;
 - b) a melting point of 140-165 °C;
 - c) branching index of 0.97 or less, and
 - d) weight average molecular weight of from 20,000-1,000,000.
2. The polymer of claim 1, wherein the polymer further comprises up to 50 weight % of one or more comonomers independently selected from the group consisting of ethylene, but-1-ene, hex-1-ene, 4-methylpent-1-ene, dicyclopentadiene, norbornene, C₄-C₂₀₀₀ α -olefins, C₄-C₂₀₀₀ α ,internal-diolefins, and C₄-C₂₀₀₀ α , ω -diolefins.
3. The composition of claim 1 wherein the weight average molecular weight is from 25,000-250,000.
4. The polymer of claim 1 wherein the 1,3 regio defect population is greater than 10 per 10,000 monomer units.
5. The polymer of claim 1 wherein the 1,3 regio defect population is greater than 15 per 10,000 monomer units.
6. The polymer of claim 1 wherein the 1,3 regio defect population is greater than 20 per 10,000 monomer units.
7. The polymer of claim 1 wherein comonomer is present and comprises one or more of ethylene, butene, pentene, hexene, octene, and decene.

8. The polymer of claim 1 wherein the polymer has less than 300 ppm silica.
9. The polymer of claim 1 wherein the polymer has less than 300 ppm residue.
10. The polymer of claim 1 wherein the polymer meso pentad mole fraction is 0.60-0.96.
11. The polymer of claim 1 wherein the polymer meso pentad mole fraction is 0.70-0.96.
12. The polymer of claim 1 wherein the polymer meso pentad mole fraction is 0.80-0.94.
13. The polymer of claim 1 wherein the total polymer comonomer content is greater than 0 wt% and less than 35 wt%.
14. The polymer of claim 1 wherein the total polymer comonomer content is from 0.5 wt% to 30 wt%.
15. The polymer of claim 1 wherein the branching index, g' , is from 0.75 to 0.97.
16. The polymer of claim 1 wherein the polymer has a heat of fusion of from 50 to 110 J/g and melting point of 145 to 165°C.
17. The polymer of claim 1 wherein the polymer has a heat of fusion of from 0 to 30 J/g and g' of 0.95 or less.
18. The polymer of claim 1 wherein the polymer has a heat of fusion of 0 to 30

J/g and melt viscosity of less than 10,000 cps at 180 °C.

19. The polymer of claim 1 wherein the polymer has a heat of fusion of from 20 to 50 J/g and melt viscosity of between 1000 and 3000 cps at 180 °C.

20. A process to polymerize olefins comprising contacting, in a polymerization system, olefin monomers having three or more carbon atoms with:

- 1) a metallocene catalyst compound,
- 2) an activator,
- 3) optionally comonomer, and
- 4) optionally diluent or solvent,

at a temperature above the cloud point temperature of the polymerization system and a pressure no lower than 10 MPa below the cloud point pressure of the polymerization system and less than 150 MPa,

where the polymerization system comprises the monomers, any comonomer present, any diluent or solvent present, and the polymer product, and

where the olefin monomers are present in the polymerization system at 40 weight % or more.

21. The process of claim 20 wherein the pressure of the polymerization system is less than 125 MPa.

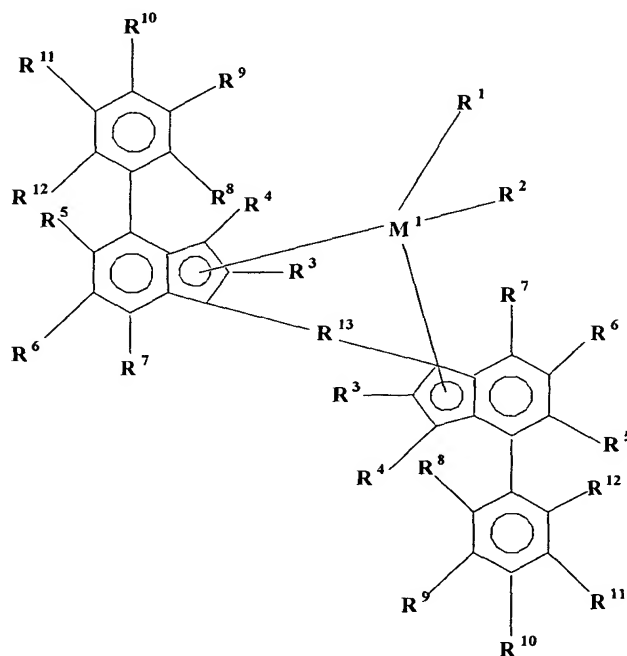
22. The process of claim 20 where the temperature is between 140 to 180°C.

23. The process of claim 20 wherein the pressure of the polymerization system is less than 100 MPa, and the temperature is between 140 to 180°C.

24. The process of claim 20 wherein the pressure of the polymerization system is above the cloud point pressure of the polymerization system.

25. The process of claim 20 wherein the pressure of the polymerization system is between 15 and 140 MPa.
26. The process of claim 20 wherein the pressure of the polymerization system is between 15 and 50 MPa.
27. The process of claim 20 wherein solvent and or diluent is present in the polymerization system at 0 to 25 wt %.
28. The process of claim 20 wherein solvent and or diluent is present in the polymerization system at 0 to 10 wt %.
29. The process of claim 20 wherein the olefin monomers having three or more carbon atoms are present in the polymerization system at 55 wt % or more.
30. The process of claim 20 wherein the olefin monomers having three or more carbon atoms are present in the polymerization system at 75 wt % or more.
31. The process of claim 20 wherein the olefin monomer having three or more carbon atoms comprises propylene.
32. The process of claim 31 wherein comonomer is present at 1 to 45 mole%.
33. The process of claim 20 wherein the polymerization medium of the monomer, comonomers, solvents and diluents comprises from 55-100 wt% propylene monomer; from 0 to 45 wt% of a comonomer mixture comprising at least one comonomer selected from ethylene, but-1-ene, hex-1-ene, 4-methylpent-1-ene, dicyclopentadiene, norbornene, C_4 - C_{2000} α -olefins, C_4 - C_{2000} α ,internal-diolefins, and C_4 - C_{2000} α,ω -diolefins.

34. The process of claim 20 wherein the comonomer comprises one or more of ethylene, butene, hexene, or octene.
35. The process of claim 20 wherein the polymerization system further comprises a bisamide catalyst compound
36. The process of claim 20 wherein the polymerization system further comprises a bisimide catalyst compound.
37. The process of claim 20 wherein the catalyst compound is represented by the formula:



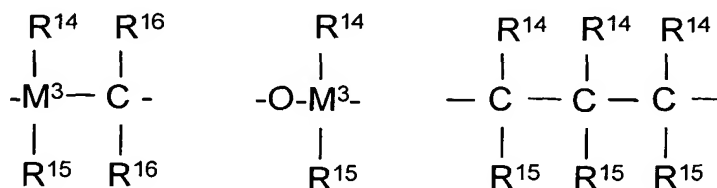
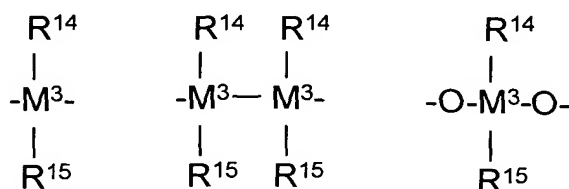
where M^1 is selected from titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, or tungsten;

R^1 and R^2 are identical or different and are selected from hydrogen atoms, C_1 - C_{10} alkyl groups, C_1 - C_{10} alkoxy groups, C_6 - C_{10} aryl groups, C_6 - C_{10} aryloxy groups, C_2 - C_{10} alkenyl groups, C_2 - C_{40} alkenyl groups, C_7 - C_{40} arylalkyl groups, C_7 - C_{40} alkylaryl groups, C_8 - C_{40} arylalkenyl groups, OH groups or halogen atoms; or conjugated dienes that are optionally substituted with one or more hydrocarbyl,

tri(hydrocarbyl)silyl groups or hydrocarbyl tri(hydrocarbyl)silylhydrocarbyl groups;

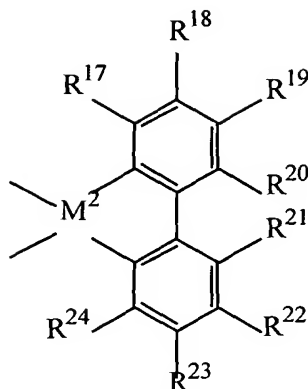
R^3 - R^{12} are the same or different and are selected from hydrogen atoms, halogen atoms, C_1 - C_{10} halogenated or unhalogenated alkyl groups, C_6 - C_{10} halogenated or unhalogenated aryl groups, C_2 - C_{10} halogenated or unhalogenated alkenyl groups, C_7 - C_{40} halogenated or unhalogenated arylalkyl groups, C_7 - C_{40} halogenated or unhalogenated alkylaryl groups, C_8 - C_{40} halogenated or unhalogenated arylalkenyl groups, $-NR'_2$, $-SR'$, $-OR'$, $-OSiR'_3$ or $-PR'_2$ radicals in which R' is one of a halogen atom, a C_1 - C_{10} alkyl group, or a C_6 - C_{10} aryl group; or two or more adjacent radicals R^5 to R^7 together with the atoms connecting them can form one or more rings;

R^{13} is selected from



$-B(R^{14})-$, $-Al(R^{14})-$, $-Ge-$, $-Sn-$, $-O-$, $-S-$, $-SO-$, $-SO_2-$, $-N(R^{14})-$, $-CO-$, $-P(R^{14})-$, $-P(O)(R^{14})-$, $-B(NR^{14}R^{15})-$ and $-B[N(SiR^{14}R^{15}R^{16})_2]-$, R^{14} , R^{15} and R^{16} are each independently selected from hydrogen, halogen, C_1 - C_{20} alkyl groups, C_6 - C_{30} aryl groups, C_1 - C_{20} alkoxy groups, C_2 - C_{20} alkenyl groups, C_7 - C_{40} arylalkyl groups, C_8 - C_{40} arylalkenyl groups and C_7 - C_{40} alkylaryl groups, or R^{14} and R^{15} , together with the atom(s) connecting them, form a ring; and M^3 is selected from carbon, silicon, germanium and tin, or R^{13} is represented by the formula:

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wherein R^{17} to R^{24} are as defined for R^1 and R^2 , or two or more adjacent radicals R^{17} to R^{24} , including R^{20} and R^{21} , together with the atoms connecting them form one or more rings; M^2 is carbon, silicon, germanium, or tin.

38. The process of claim 20 wherein the catalyst compound comprises one or more of:

μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride,

μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl,

1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,

1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,

dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dimethyl,

dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dichloride,

1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,

1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,

dimethylsilylbis(indenyl)hafnium dichloride,

dimethylsilylbis(indenyl)hafnium dimethyl,

dimethylsilyl bis(2-methylindenyl) zirconium dichloride,

dimethylsilyl bis(2-methylindenyl) zirconium dimethyl,

dimethylsilyl bis(2-methylfluorenyl) zirconium dichloride,
 dimethylsilyl bis(2-methylfluorenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride, and
 dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride dimethyl.

39. The process claim 20 wherein the catalyst compound comprises two or more of:

μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride,
 μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl,
 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,
 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,
 dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dimethyl,
 dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dichloride,
 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,
 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,
 dimethylsilylbis(indenyl)hafnium dichloride,
 dimethylsilylbis(indenyl)hafnium dimethyl,
 dimethylsilyl bis(2-methylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-methylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methylfluorenyl) zirconium dichloride,

dimethylsilyl bis(2-methylfluorenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dichloride,
 dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dimethyl,
 dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride, and
 dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride dimethyl.

40. The process claim 20 wherein the catalyst compound comprises:

- 1) dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dichloride and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride;
- 2) dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium methyl and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl;
- 3) 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride; or
- 4) 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl.

41. The process of claim 20 wherein the activator comprises alumoxane.

42. The process of claim 20 wherein the activator comprises a non-coordinating anion.

43. The process of claim 20 wherein the activator comprises one or more of trimethylammonium tetraphenylborate,

tris(perfluorophenyl) borate,
tris(perfluoronaphthyl) borate,
triethylammonium tetraphenylborate,
tripropylammonium tetraphenylborate,
tri(n-butyl)ammonium tetraphenylborate,
tri(t-butyl)ammonium tetraphenylborate,
N,N-dimethylanilinium tetraphenylborate,
N,N-diethylanilinium tetraphenylborate,
N,N-dimethyl-(2,4,6-trimethylanilinium) tetraphenylborate,
trimethylammonium tetrakis(pentafluorophenyl)borate,
triethylammonium tetrakis(pentafluorophenyl)borate,
tripropylammonium tetrakis(pentafluorophenyl)borate,
tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate,
tri(sec-butyl)ammonium tetrakis(pentafluorophenyl) borate,
N,N-dimethylanilinium tetrakis(pentafluorophenyl) borate,
N,N-diethylanilinium tetrakis(pentafluorophenyl) borate,
N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(pentafluorophenyl) borate,
trimethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate,
triethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
tripropylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
tri(n-butyl)ammonium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
dimethyl(t-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
N,N-dimethylanilinium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
N,N-diethylanilinium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
N,N-dimethyl-(2,4,6-trimethylanilinium)tetrakis-(2,3,4,6-tetrafluorophenyl)
borate,
dialkyl ammonium salts such as: di-(i-propyl)ammonium
tetrakis(pentafluorophenyl) borate, dicyclohexylammonium
tetrakis(pentafluorophenyl) borate,
triphenylphosphonium tetrakis(pentafluorophenyl) borate,

tri(o-tolyl)phosphonium tetrakis(pentafluorophenyl) borate, and
tri(2,6-dimethylphenyl)phosphonium tetrakis(pentafluorophenyl) borate.

44. The process of claim 20 wherein the activator comprises N,N-dimethylanilinium tetra(perfluorophenyl)borate and/or triphenylcarbenium tetra(perfluorophenyl)borate
45. The process of claim 20 wherein the polymerization takes place in a tubular reactor.
46. The process of claim 45 wherein the tubular reactor has a length-to-diameter ratios of 1:1 to 20:1.
47. The process of claim 45 wherein the tubular reactor has a length-to-diameter ratio of 4:1 to 20:1 and the reactor contains up to six different injection positions.
48. The process of claim 45 wherein the tubular reactor has a length of 100-2000 meters and an internal diameter of less than 10 cm.
49. The process of claim 45 wherein the tubular reactor is operated in multiple zones.
50. The process claim 20 wherein the polymerization takes place in an autoclave reactor.
51. The process of claim 50 wherein the autoclave reactor has a length-to-diameter ratios of 1:1 to 20:1.
52. The process of claim 50 wherein the autoclave reactor has a length-to-

diameter ratio of 4:1 to 20:1 and the reactor contains up to six different injection positions.

53. The process of claim 50 wherein the autoclave reactor is operated in multiple zones.

54. The process of claim 50 wherein the process comprises (a) continuously feeding olefin monomers, catalyst compound, and activator to the autoclave reactor; (b) continuously polymerizing the monomers in a polymerization zone reactor under elevated pressure; (c) continuously removing the polymer/monomer mixture from the reactor; (d) continuously separating monomer from molten polymer; (e) reducing pressure to form a monomer-rich and a polymer-rich phase; and (f) separating monomer from the polymer.

55. The process of claim 20 wherein the polymerization takes place in a loop reactor.

56. The process of claim 55 wherein the loop reactor has a diameter of 41 to 61 cm and a length of 100 to 200 meters.

57. The process of claim 55 wherein the loop reactor is operated at pressures of 25 to 30 MPa.

58. The process of claim 55 where an in-line pump continuously circulates the polymerization system through the loop reactor.

59. The process of claim 55 wherein the process comprises (a) continuously feeding olefin monomers, catalyst compound, and activator to the loop reactor; (b) continuously polymerizing the monomers in a polymerization zone reactor under elevated pressure; (c) continuously removing the polymer/monomer mixture from

the reactor; (d) continuously separating monomer from molten polymer; (e) reducing pressure to form a monomer-rich and a polymer-rich phase; and (f) separating monomer from the polymer.

60. The process of claim 20 wherein the polymerization takes place in multiple reactors.

61. The process of claim 60 wherein the polymerization takes places in a tubular reactor and then an autoclave reactor.

62. The process of claim 60 wherein the polymerization takes places in a tubular reactor and then a loop reactor.

63. The process of claim 20 wherein the residence time is less than 5 minutes.

64. A film comprising the polymer of claim 1.

65. A molded article comprising the polymer of claim 1.

66. An article comprising the polymer of claim 1.

67. A sheet comprising the polymer of claim 1.

68. A fiber comprising the polymer of claim 1.

69. A nonwoven comprising the polymer of claim 1.

70. A fabric comprising the polymer of claim 1.

72. An adhesive comprising the polymer of claim 1.

73. The process of any of claim 1 wherein the catalyst compound comprises one or more of:

dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dichloride;
 9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dichloride;
 9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dichloride;
 9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium
 dichloride;
 9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium
 dichloride;
 dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;
 9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
 dimethyl;
 9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium
 dichloride;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium
 dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl
 dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-isobutyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium
 dimethyl;
 dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium
 dimethyl;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium
 dimethyl;
 dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
dimethylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-*t*-butylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-*n*-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-*n*-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-*n*-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-*n*-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium
dimethyl;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium
dichloride;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-isopropylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -1,4-
diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-isopropylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-isopropylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl; and

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-diphenylphenyl]indenyl)₂zirconium dimethyl.

74. A process to polymerize olefins comprising contacting, in a polymerization system, propylene with:

- 1) a metallocene catalyst compound,
- 2) an activator,
- 3) optionally comonomer, and
- 4) optionally diluent or solvent,

at a temperature above the cloud point temperature of the polymerization system and a pressure no lower than 10 MPa below the cloud point pressure of the polymerization system and less than 150 MPa,

where the polymerization system comprises the propylene, any comonomer present, any diluent or solvent present, and the polymer product, and where the propylene is present in the polymerization system at 40 weight % or more.

75. The process of claim 74 wherein the pressure of the polymerization system is less than 125 MPa.

76. The process of claim 74 wherein the temperature is between 140 to 180°C.

77. The process of claim 74 wherein the pressure of the polymerization system is less than 100 MPa, and the temperature is between 140 to 180°C.

78. The process of claim 74 wherein the pressure of the polymerization system is above the cloud point pressure of the polymerization system.

79. The process of claim 74 wherein the pressure of the polymerization system is between 15 and 140 MPa.

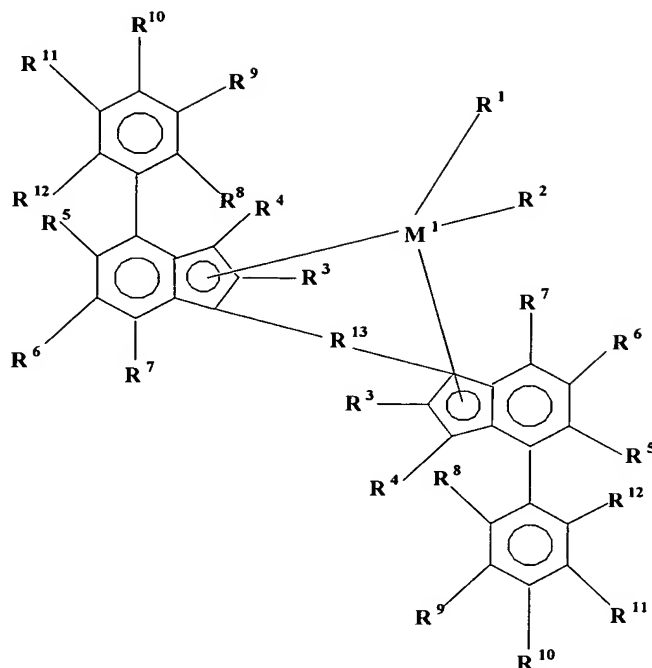
80. The process of claim 74 wherein the pressure of the polymerization system is between 15 and 50 MPa.

81. The process of claim 74 wherein solvent and or diluent is present in the polymerization system at 0 to 25 wt %.

81. The process of claim 74 wherein solvent and or diluent is present in the polymerization system at 0 to 10 wt %.

82. The process of claim 74 wherein the propylene is present in the polymerization system at 55 wt % or more.

83. The process of claim 74 wherein the propylene is present in the polymerization system at 75 wt % or more.
84. The process of claim 74 wherein comonomer is present at 1 to 45 mole%.
85. The process of claim 74 wherein the polymerization medium of the monomer, comonomers, solvents and diluents comprises from 55-100 wt% propylene monomer; from 0 to 45 wt% of a comonomer mixture comprising at least one comonomer selected from ethylene, but-1-ene, hex-1-ene, 4-methylpent-1-ene, dicyclopentadiene, norbornene, C₄-C₂₀₀₀ α -olefins, C₄-C₂₀₀₀ α ,internal-diolefins, and C₄-C₂₀₀₀ α,ω -diolefins.
86. The process of claim 74 wherein the comonomer comprises one or more of ethylene, butene, hexene, or octene.
87. The process of claim 74 wherein the polymerization system further comprises a bisamide catalyst compound
88. The process of claim 74 wherein the polymerization system further comprises a bisimide catalyst compound.
89. The process of claim 74 wherein the catalyst compound is represented by the formula:



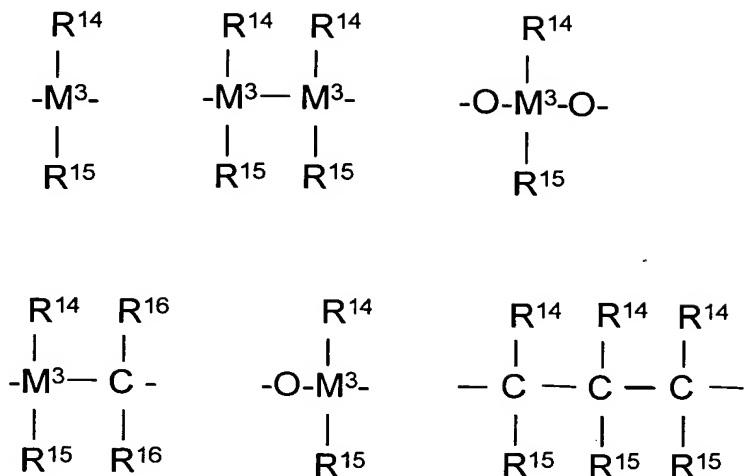
where M^1 is selected from titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, or tungsten;

R^1 and R^2 are identical or different and are selected from hydrogen atoms, C_1 - C_{10} alkyl groups, C_1 - C_{10} alkoxy groups, C_6 - C_{10} aryl groups, C_6 - C_{10} aryloxy groups, C_2 - C_{10} alkenyl groups, C_2 - C_{40} alkenyl groups, C_7 - C_{40} arylalkyl groups, C_7 - C_{40} alkylaryl groups, C_8 - C_{40} arylalkenyl groups, OH groups or halogen atoms; or conjugated dienes that are optionally substituted with one or more hydrocarbyl, tri(hydrocarbyl)silyl groups or hydrocarbyl tri(hydrocarbyl)silylhydrocarbyl groups;

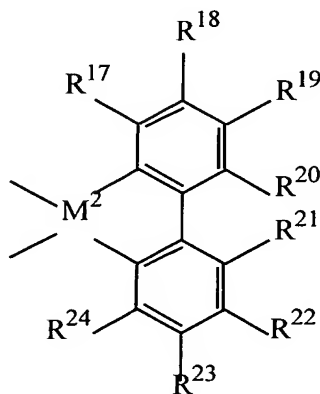
R^3 - R^{12} are the same or different and are selected from hydrogen atoms, halogen atoms, C_1 - C_{10} halogenated or unhalogenated alkyl groups, C_6 - C_{10} halogenated or unhalogenated aryl groups, C_2 - C_{10} halogenated or unhalogenated alkenyl groups, C_7 - C_{40} halogenated or unhalogenated arylalkyl groups, C_7 - C_{40} halogenated or unhalogenated alkylaryl groups, C_8 - C_{40} halogenated or unhalogenated arylalkenyl groups, $-NR'_2$, $-SR'$, $-OR'$, $-OSiR'_3$ or $-PR'_2$ radicals in which R' is one of a halogen atom, a C_1 - C_{10} alkyl group, or a C_6 - C_{10} aryl group; or two or more adjacent radicals R^5 to R^7 together with the atoms connecting them can form one or more

rings;

R^{13} is selected from



$-B(R^{14})-$, $-Al(R^{14})-$, $-Ge-$, $-Sn-$, $-O-$, $-S-$, $-SO-$, $-SO_2-$, $-N(R^{14})-$, $-CO-$, $-P(R^{14})-$, $-P(O)(R^{14})-$, $-B(NR^{14}R^{15})-$ and $-B[N(SiR^{14}R^{15}R^{16})_2]-$, R^{14} , R^{15} and R^{16} are each independently selected from hydrogen, halogen, C_1 - C_{20} alkyl groups, C_6 - C_{30} aryl groups, C_1 - C_{20} alkoxy groups, C_2 - C_{20} alkenyl groups, C_7 - C_{40} arylalkyl groups, C_8 - C_{40} arylalkenyl groups and C_7 - C_{40} alkylaryl groups, or R^{14} and R^{15} , together with the atom(s) connecting them, form a ring; and M^3 is selected from carbon, silicon, germanium and tin, or R^{13} is represented by the formula:



wherein R^{17} to R^{24} are as defined for R^1 and R^2 , or two or more adjacent radicals R^{17} to R^{24} , including R^{20} and R^{21} , together with the atoms connecting them form one or more rings; M^2 is carbon, silicon, germanium, or tin.

90. The process of claim 74 wherein the catalyst compound comprises one or more of:

μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride,
 μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,
dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dimethyl,
dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dichloride,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,
dimethylsilylbis(indenyl)hafnium dichloride,
dimethylsilylbis(indenyl)hafnium dimethyl,
dimethylsilyl bis(2-methylindenyl) zirconium dichloride,
dimethylsilyl bis(2-methylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-methylfluorenyl) zirconium dichloride,
dimethylsilyl bis(2-methylfluorenyl) zirconium dimethyl,
dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dichloride,
dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dichloride,
dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dichloride,
dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride, and
dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride dimethyl.

91. The process claim 74 wherein the catalyst compound comprises two or more of:

μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride,
 μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,
dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dimethyl,
dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dichloride,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride,
1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl,
dimethylsilylbis(indenyl)hafnium dichloride,
dimethylsilylbis(indenyl)hafnium dimethyl,
dimethylsilyl bis(2-methylindenyl) zirconium dichloride,
dimethylsilyl bis(2-methylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-methylfluorenyl) zirconium dichloride,
dimethylsilyl bis(2-methylfluorenyl) zirconium dimethyl,
dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dichloride,
dimethylsilyl bis(2-methyl-5,7-propylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dichloride,
dimethylsilyl bis(2-methyl-5-phenylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dichloride,
dimethylsilyl bis(2-ethyl-5-phenylindenyl) zirconium dimethyl,
dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride, and
dimethylsilyl bis(2-methyl-5-biphenylindenyl) zirconium dichloride dimethyl.

92. The process claim 74 wherein the catalyst compound comprises:

- 1) dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium dichloride and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride;
- 2) dimethylsilyl(tetramethylcyclopentadienyl)(dodecylamido)titanium methyl and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl;
- 3) 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dichloride and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dichloride; or
- 4) 1, 1'-bis(4-triethylsilylphenyl)methylene-(cyclopentadienyl)(2,7-di-tertiary-butyl-9-fluorenyl)hafnium dimethyl and μ -dimethyl silylbis(-2-methyl, 4-phenylindenyl) zirconium dimethyl.

93. The process of claim 74 wherein the activator comprises alumoxane.

94. The process of claim 74 wherein the activator comprises a non-coordinating anion.

95. The process of claim 74 wherein the activator comprises one or more of trimethylammonium tetraphenylborate, trisperfluorophenyl borate, trisperfluoronaphtyl borate, triethylammonium tetraphenylborate, tripropylammonium tetraphenylborate, tri(n-butyl)ammonium tetraphenylborate, tri(t-butyl)ammonium tetraphenylborate, N,N-dimethylanilinium tetraphenylborate, N,N-diethylanilinium tetraphenylborate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetraphenylborate, trimethylammonium tetrakis(pentafluorophenyl)borate, triethylammonium tetrakis(pentafluorophenyl)borate,

tripropylammonium tetrakis(pentafluorophenyl)borate,
 tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate,
 tri(sec-butyl)ammonium tetrakis(pentafluorophenyl) borate,
 N,N-dimethylanilinium tetrakis(pentafluorophenyl) borate,
 N,N-diethylanilinium tetrakis(pentafluorophenyl) borate,
 N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(pentafluorophenyl) borate,
 trimethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate,
 triethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 tripropylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 tri(n-butyl)ammonium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
 dimethyl(t-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 N,N-dimethylanilinium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 N,N-diethylanilinium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
 N,N-dimethyl-(2,4,6-trimethylanilinium)tetrakis-(2,3,4,6-tetrafluorophenyl)
 borate,
 dialkyl ammonium salts such as: di-(i-propyl)ammonium
 tetrakis(pentafluorophenyl) borate, dicyclohexylammonium
 tetrakis(pentafluorophenyl) borate,
 triphenylphosphonium tetrakis(pentafluorophenyl) borate,
 tri(o-tolyl)phosphonium tetrakis(pentafluorophenyl) borate, and
 tri(2,6-dimethylphenyl)phosphonium tetrakis(pentafluorophenyl) borate.

96. The process of claim 74 wherein the activator comprises N,N-dimethylanilinium tetra(perfluorophenyl)borate and/or triphenylcarbenium tetra(perfluorophenyl)borate

97. The process of claim 74 wherein the polymerization takes place in a tubular reactor.

98. The process of claim 74 wherein the tubular reactor has a length-to-

diameter ratios of 1:1 to 20:1.

99. The process of claim 74 wherein the polymerization takes place in a tubular reactor having a length-to-diameter ratio of 4:1 to 20:1 and the reactor contains up to six different injection positions.

100. The process of claim 74 wherein the polymerization takes place in a tubular reactor having a length of 100-2000 meters and an internal diameter of less than 10 cm.

101. The process of claim 74 wherein the polymerization takes place in a tubular reactor operated in multiple zones.

102. The process claim 74 wherein the polymerization takes place in an autoclave reactor.

103. The process of claim 74 wherein the polymerization takes place in an autoclave reactor having a length-to-diameter ratios of 1:1 to 20:1.

104. The process of claim 74 wherein the polymerization takes place in an autoclave reactor having a length-to-diameter ratio of 4:1 to 20:1 and the reactor contains up to six different injection positions.

105. The process of claim 74 wherein the polymerization takes place in an autoclave reactor operated in multiple zones.

106. The process of claim 74 wherein the process comprises (a) continuously feeding propylene, catalyst compound, and activator to an autoclave reactor; (b) continuously polymerizing the monomers in the reactor under elevated pressure; (c) continuously removing the polymer/monomer mixture from the reactor; (d)

continuously separating monomer from molten polymer; (e) reducing pressure to form a monomer-rich and a polymer-rich phase; and (f) separating monomer from the polymer.

107. The process of claim 74 wherein the polymerization takes place in a loop reactor.

108. The process of claim 74 wherein the polymerization takes place in a loop reactor having a diameter of 41 to 61 cm and a length of 100 to 200 meters.

109. The process of claim 74 wherein the polymerization takes place in a loop reactor operated at pressures of 25 to 30 MPa.

110. The process of claim 74 wherein the polymerization takes place in a loop reactor where an in-line pump continuously circulates the polymerization system through the loop reactor.

111. The process of claim 74 wherein the process comprises (a) continuously feeding olefin monomers, catalyst compound, and activator to a loop reactor; (b) continuously polymerizing the monomers in the reactor under elevated pressure; (c) continuously removing the polymer/monomer mixture from the reactor; (d) continuously separating monomer from molten polymer; (e) reducing pressure to form a monomer-rich and a polymer-rich phase; and (f) separating monomer from the polymer.

112. The process of claim 74 wherein the polymerization takes place in multiple reactors.

113. The process of claim 74 wherein the polymerization takes places in a tubular reactor and then an autoclave reactor.

114. The process of claim 74 wherein the polymerization takes places in a tubular reactor and then a loop reactor.
115. The process of claim 74 wherein the residence time is less than 5 minutes.
116. The process of claim 74 wherein the catalyst compound comprises one or more of:
- dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
- dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
- dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
- dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
- dimethylsiladiyl(2-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;
- 9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
- 9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ hafnium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium
 dichloride;
 9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium
 dichloride;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl
 dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-isobutyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium
 dimethyl;
 dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium
 dimethyl;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di- iso-propylphenyl]indenyl)₂hafnium
 dimethyl;
 dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium
 dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
 9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dichloride;
 9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂hafnium dimethyl;
 dimethylsiladiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 dimethylsiladiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylsiladiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl) η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

9-silafluorendiyl(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

dimethylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-bis- trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

dimethylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ zirconium dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl

dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
dimethylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
diisopropylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
diisopropylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;
diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;
 diisopropylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 diisopropylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;
 diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl) η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

diisopropylamidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dichloride;

bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η^4 -1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-tbutylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-bis-trifluoromethylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂ η⁴-1,4-diphenyl-1,3-butadiene;

bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
 1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -1,4-
 diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
 1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂
 η^4 -1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
 1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
 1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
 1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂ η^4 -
 1,4-diphenyl-1,3-butadiene;
 bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-
 tbutylphenyl]indenyl)₂zirconium dimethyl;
 bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-
 tbutylphenyl]indenyl)₂zirconium dimethyl;

bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-
tbutylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-bis-
trifluoromethylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-iso-
propylphenyl]indenyl)₂zirconium dimethyl

bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-iso-propylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-methyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-ethyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-propyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-n-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-iso-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl;
bis(trimethylsilyl)amidoborane(2-sec-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl; and
bis(trimethylsilyl)amidoborane(2-tert-butyl, 4-[3',5'-di-phenylphenyl]indenyl)₂zirconium dimethyl.

117. The process of claim 116 wherein the activator comprises one or more of trimethylammonium tetraphenylborate, tris(perfluorophenyl) borate,

tris(perfluoronaphthyl) borate,
triethylammonium tetraphenylborate,
tripropylammonium tetraphenylborate,
tri(n-butyl)ammonium tetraphenylborate,
tri(t-butyl)ammonium tetraphenylborate,
N,N-dimethylanilinium tetraphenylborate,
N,N-diethylanilinium tetraphenylborate,
N,N-dimethyl-(2,4,6-trimethylanilinium) tetraphenylborate,
trimethylammonium tetrakis(pentafluorophenyl)borate,
triethylammonium tetrakis(pentafluorophenyl)borate,
tripropylammonium tetrakis(pentafluorophenyl)borate,
tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate,
tri(sec-butyl)ammonium tetrakis(pentafluorophenyl) borate,
N,N-dimethylanilinium tetrakis(pentafluorophenyl) borate,
N,N-diethylanilinium tetrakis(pentafluorophenyl) borate,
N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(pentafluorophenyl) borate,
trimethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate,
triethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
tripropylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
tri(n-butyl)ammonium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
dimethyl(t-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
N,N-dimethylanilinium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
N,N-diethylanilinium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
N,N-dimethyl-(2,4,6-trimethylanilinium)tetrakis-(2,3,4,6-tetrafluorophenyl)
borate,
dialkyl ammonium salts such as: di-(i-propyl)ammonium
tetrakis(pentafluorophenyl) borate, dicyclohexylammonium
tetrakis(pentafluorophenyl) borate,
triphenylphosphonium tetrakis(pentafluorophenyl) borate,
tri(o-tolyl)phosphonium tetrakis(pentafluorophenyl) borate, and

tri(2,6-dimethylphenyl)phosphonium tetrakis(pentafluorophenyl) borate.

118. The process of claim 117 where the pressure of the polymerization system is between 10 and 100 MPa and the temperature is between 140 and 190°C.

119. The process of claim 118 where the pressure of the polymerization system is between 10 and 60 MPa.

120. A process to polymerize olefins comprising contacting, in a polymerization system, olefin monomers having three or more carbon atoms with:

- 1) a bisimide catalyst compound and/or bisamide catalyst compound,
- 2) an activator,
- 3) optionally comonomer, and
- 4) optionally diluent or solvent,

at a temperature above the cloud point temperature of the polymerization system and a pressure no lower than 10 MPa below the cloud point pressure of the polymerization system,

where the polymerization system comprises the monomers, any comonomer present, any diluent or solvent present, and the polymer product, and

where the olefin monomers are present in the polymerization system at 40 weight % or more.

121. The process of claim 120 wherein the pressure of the polymerization system is less than 125 MPa.

122. The process of claim 120 where the temperature is between 140 to 180°C.

123. The process of claim 120 wherein the pressure of the polymerization system is less than 100 MPa, and the temperature is between 140 to 180°C.

124. The process of claim 120 wherein the pressure of the polymerization system is above the cloud point pressure of the polymerization system.
125. The process of claim 120 wherein the pressure of the polymerization system is between 15 and 140 MPa.
126. The process of claim 120 wherein the pressure of the polymerization system is between 15 and 50 MPa.
127. The process of claim 120 wherein solvent and or diluent is present in the polymerization system at 0 to 25 wt %.
128. The process of claim 120 wherein solvent and or diluent is present in the polymerization system at 0 to 10 wt %.
129. The process of claim 120 wherein the olefin monomers having three or more carbon atoms are present in the polymerization system at 55 wt % or more.
130. The process of claim 120 wherein the olefin monomers having three or more carbon atoms are present in the polymerization system at 75 wt % or more.
131. The process of claim 120 wherein the olefin monomer having three or more carbon atoms comprises propylene.
132. The process of claim 131 wherein comonomer is present at 1 to 45 mole%.
133. The process of claim 120 wherein the polymerization medium of the monomer, comonomers, solvents and diluents comprises from 55-100 wt% propylene monomer; from 0 to 45 wt% of a comonomer mixture comprising at least one comonomer selected from ethylene, but-1-ene, hex-1-ene, 4-methylpent-

1-ene, dicyclopentadiene, norbornene, C_4 - C_{2000} α -olefins, C_4 - C_{2000} α ,internal-diolefins, and C_4 - C_{2000} α,ω -diolefins.

134. The process of claim 120 wherein the comonomer comprises one or more of ethylene, butene, hexene, or octene.

135. The process of claim 120 wherein the activator comprises alumoxane.

136. The process of claim 120 wherein the activator comprises a non-coordinating anion.

137. The process of claim 120 wherein the activator comprises one or more of trimethylammonium tetraphenylborate, trisperfluorophenyl borate, trisperfluoronaphtyl borate, triethylammonium tetraphenylborate, tripropylammonium tetraphenylborate, tri(n-butyl)ammonium tetraphenylborate, tri(t-butyl)ammonium tetraphenylborate, N,N-dimethylanilinium tetraphenylborate, N,N-diethylanilinium tetraphenylborate, N,N-dimethyl-(2,4,6-trimethylanilinium) tetraphenylborate, trimethylammonium tetrakis(pentafluorophenyl)borate, triethylammonium tetrakis(pentafluorophenyl)borate, tripropylammonium tetrakis(pentafluorophenyl)borate, tri(n-butyl)ammonium tetrakis(pentafluorophenyl)borate, tri(sec-butyl)ammonium tetrakis(pentafluorophenyl) borate, N,N-dimethylanilinium tetrakis(pentafluorophenyl) borate, N,N-diethylanilinium tetrakis(pentafluorophenyl) borate,

N,N-dimethyl-(2,4,6-trimethylanilinium) tetrakis(pentafluorophenyl) borate,
 trimethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl)borate,
 triethylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 tripropylammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 tri(n-butyl)ammonium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
 dimethyl(t-butyl)ammonium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 N,N-dimethylanilinium tetrakis-(2,3,4,6-tetrafluorophenyl) borate,
 N,N-diethylanilinium tetrakis-(2,3,4,6-tetrafluoro-phenyl) borate,
 N,N-dimethyl-(2,4,6-trimethylanilinium)tetrakis-(2,3,4,6-tetrafluorophenyl)
 borate,
 dialkyl ammonium salts such as: di-(i-propyl)ammonium
 tetrakis(pentafluorophenyl) borate, dicyclohexylammonium
 tetrakis(pentafluorophenyl) borate,
 triphenylphosphonium tetrakis(pentafluorophenyl) borate,
 tri(o-tolyl)phosphonium tetrakis(pentafluorophenyl) borate, and
 tri(2,6-dimethylphenyl)phosphonium tetrakis(pentafluorophenyl) borate.

138. The process of claim 20 wherein the activator comprises N,N-dimethylanilinium tetra(perfluorophenyl)borate and/or triphenylcarbenium tetra(perfluorophenyl)borate

139. The process of claim 120 wherein the polymerization takes place in a tubular reactor.

140. The process of claim 120 wherein the polymerization takes place in a tubular reactor having a length-to-diameter ratios of 1:1 to 20:1.

141. The process of claim 120 wherein the polymerization takes place in a tubular reactor having a length-to-diameter ratio of 4:1 to 20:1 and the reactor contains up to six different injection positions.

142. The process of claim 120 wherein the polymerization takes place in a tubular reactor having a length of 100-2000 meters and an internal diameter of less than 10 cm.

143. The process of claim 120 wherein the polymerization takes place in a tubular reactor operated in multiple zones.

144. The process of claim 120 wherein the polymerization takes place in an autoclave reactor.

145. The process of claim 120 wherein the polymerization takes place in an autoclave reactor having a length-to-diameter ratios of 1:1 to 20:1.

146. The process of claim 120 wherein the polymerization takes place in an autoclave reactor having a length-to-diameter ratio of 4:1 to 20:1 and the reactor contains up to six different injection positions.

147. The process of claim 120 wherein the polymerization takes place in an autoclave reactor operated in multiple zones.

148. The process of claim 120 wherein the process comprises (a) continuously feeding olefin monomers, catalyst compound, and activator to the autoclave reactor; (b) continuously polymerizing the monomers in the reactor under elevated pressure; (c) continuously removing the polymer/monomer mixture from the reactor; (d) continuously separating monomer from molten polymer; (e) reducing pressure to form a monomer-rich and a polymer-rich phase; and (f) separating monomer from the polymer.

149. The process of claim 120 wherein the polymerization takes place in a loop

reactor.

150. The process of claim 120 wherein the polymerization takes place in a loop reactor having a diameter of 41 to 61 cm and a length of 100 to 200 meters.

151. The process of claim 120 wherein the polymerization takes place in a loop reactor operated at pressures of 25 to 30 MPa.

152. The process of claim 120 wherein the polymerization takes place in a loop reactor and an in-line pump continuously circulates the polymerization system through the loop reactor.

153. The process of claim 120 wherein the process comprises (a) continuously feeding olefin monomers, catalyst compound, and activator to the loop reactor; (b) continuously polymerizing the monomers in the reactor under elevated pressure; (c) continuously removing the polymer/monomer mixture from the reactor; (d) continuously separating monomer from molten polymer; (e) reducing pressure to form a monomer-rich and a polymer-rich phase; and (f) separating monomer from the polymer.

154. The process of claim 120 wherein the polymerization takes place in multiple reactors.

155. The process of claim 120 wherein the polymerization takes places in a tubular reactor and then an autoclave reactor.

156. The process of claim 120 wherein the polymerization takes places in a tubular reactor and then a loop reactor.

157. The process of claim 120 wherein the residence time is less than 5 minutes.